

**WHAT IS CLAIMED IS:**

1. A computer-implemented method for modifying network configuration information on a client node, the method comprising:
  - establishing a first network connection between the client node and a host node using at least one network configuration parameter;
  - 5 collecting configuration history information on the client node, the configuration history information having at least one parameter that is related to the first network connection;
  - analyzing policy information on the client node, the policy information having a rule that is used for specifying a predetermined criterion;
  - 10 if one of the parameters in the configuration history information does not satisfy the predetermined criterion, modifying one of the network configuration parameters; and
  - establishing a second network connection between the client node and the host node using the modified network configuration parameter.
- 15 2. The computer-implemented method of claim 1, further comprising receiving the policy information from the host node prior to analyzing the policy information.
3. The computer-implemented method of claim 1, wherein:
  - 20 the first network connection comprises a first modem connection;
  - the at least one network configuration parameter comprises at least one modem configuration parameter; and
  - the second network connection comprises a second modem connection.
- 25 4. The computer-implemented method of claim 1, further comprising:
  - if one of the parameters in the configuration history information does not satisfy the predetermined criterion, modifying a plurality of the network configuration parameters; and
  - 30 establishing a second network connection between the client node and the host node using the modified network configuration parameters.

5. The computer-implemented method of claim 4, wherein the at least one modem configuration parameter includes a dialed number parameter and a connection speed parameter.
- 5 6. The computer-implemented method of claim 5, wherein the at least one modem configuration parameter further includes a data compression technique parameter and a modulation technique parameter.
7. The computer-implemented method of claim 1, wherein:  
10 the first network connection comprises a first Internet connection;  
the at least one network configuration parameter comprises at least one Internet configuration parameter; and  
the second network connection comprises a second Internet connection.
- 15 8. The computer-implemented method of claim 7, wherein the at least one Internet configuration parameter includes a host Internet Protocol (IP) address parameter and a connection speed parameter.
9. The computer-implemented method of claim 8, wherein the at least one  
20 Internet configuration parameter further includes a data compression technique parameter and an encryption technique parameter.
10. The computer-implemented method of claim 1, wherein the configuration history information includes a dialed number parameter and a connection speed  
25 parameter.
11. The computer-implemented method of claim 1, wherein the configuration history information includes a host Internet Protocol (IP) address parameter and a connection speed parameter.
- 30 12. The computer-implemented method of claim 1, wherein the configuration history information includes a performance statistic.

13. The computer-implemented method of claim 1, wherein the rule contained in the policy information include a rule for specifying cost or performance criteria.
14. The computer-implemented method of claim 1, wherein the policy information further includes host access information used by the client node when modifying the network configuration parameter.
15. The computer-implemented method of claim 14, wherein the host access information includes at least one modem access number.
16. The computer-implemented method of claim 14, wherein the host access information includes at least one Internet Protocol (IP) address.
17. The computer-implemented method of claim 1, further comprising terminating the first network connection.
18. The computer-implemented method of claim 1, further comprising sending the configuration history information to the host node.
19. The computer-implemented method of claim 1, further comprising collecting additional configuration history information on the client node, the additional configuration history information containing at least one parameter that is related to the second network connection.
20. A computer system, comprising:  
a storage device to store a database;  
a memory; and  
a processor operable to execute instructions contained in the memory, the processor being thereby programmed to:  
establish a first network connection with a host node using at least one network configuration parameter stored in the database;

store configuration history information in the database, the configuration history information having at least one parameter that is related to the first network connection;

analyze policy information having a rule that is used for specifying a predetermined criterion;

if one of the parameters in the configuration history information does not satisfy the predetermined criterion, modify one of the network configuration parameters; and

establish a second network connection with the host node using the modified network configuration parameter.

21. The computer system of claim 20, further comprising an input/output device.

22. The computer system of claim 20, further comprising a network adaptor to interface with a network device during establishment of the first and second network connections.

23. The computer system of claim 22, wherein the network device is a modem.

24. The computer system of claim 22, wherein the network device is a cable modem.

25. A computer system, comprising:

means for establishing a first network connection between a client node and a host node using at least one network configuration parameter;

means for collecting configuration history information on the client node, the configuration history information containing at least one parameter that is related to the first network connection;

means for analyzing policy information on the client node, the policy information containing a rule that is used for specifying a predetermined criterion;

if one of the parameters in the configuration history information does not satisfy the predetermined criterion, means for modifying one of the network configuration parameters; and

means for establishing a second network connection between the client node and the host node using the modified network configuration parameter.

26. A computer-readable medium having computer-executable instructions  
5 contained therein for performing a method, the method comprising:
- establishing a first network connection between a client node and a host node  
using at least one network configuration parameter;
  - collecting configuration history information on the client node, the  
configuration history information containing at least one parameter that is related to  
10 the first network connection;
  - analyzing policy information on the client node, the policy information  
containing a rule that is used for specifying a predetermined criterion;
  - if one of the parameters in the configuration history information does not  
satisfy the predetermined criterion, modifying one of the network configuration  
15 parameters; and
  - establishing a second network connection between the client node and the host  
node using the modified network configuration parameter.